

# **Contents**

### YOUR RESPONSIBILITY:

To protect employees who use, handle, store, distribute, or transport anhydrous ammonia

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# **Employee Safety**

# Rule

WAC 296-826-20005

# Personal protective equipment (PPE)

#### You must

- Provide the following PPE at all stationary storage installations:
  - Two respirators in readily accessible locations as required by WAC 296-842, Respirators
  - One pair of protective gloves, boots, pants, a protective slicker, and a jacket made of:
    - Rubber
    - or
    - Other material that can't be penetrated by ammonia.
  - Tight fitting vented goggles and one full face shield.
  - An easily accessible shower or 50 gallons of clean water in an open top container.
- Equip tank motor vehicles with all of the following equipment for emergency purposes:
  - At least 5 gallons of water to flush liquid ammonia from skin or eyes.
  - Respiratory equipment suitable for anhydrous ammonia as required by chapter 296-842 WAC, Respirators
  - A pair of protective gloves made of neoprene rubber or other material that can't be penetrated by ammonia.
  - Tight fitting goggles and a full face shield



#### Note:

Additional safety equipment is recommended when more than one employee is present.



# Rule

#### WAC 296-826-20010

# **Training**

#### You must

- Train employees who handle ammonia on all of the following:
  - Safe operating practices
  - Emergency procedures
  - Proper use of personal protective equipment (PPE)

#### WAC 296-826-20015

### **Chemical reactions**

#### You must

 Prohibit the use of ammonia with other chemicals unless the possible reactions have been adequately investigated.



#### Note:

- ➤ Under some circumstances, ammonia and ammonium compounds can form explosive products with other chemicals. For additional information, refer to the following:
  - Section 491M "Manual on Hazardous Chemical Reactions" of the NFPA, 1969 Edition

#### and

 CG-388, the "Chemical Data Guide for Bulk Shipment by Water," 1969



# **Employee Safety**

WAC 296-826-200

# Rule

WAC 296-826-20020

## **Emergencies**

#### You must

- Make sure only trained personnel designated to respond if a leak occurs in an ammonia system do all of the following:
  - Evacuate affected personnel to noncontaminated areas
  - Shut off appropriate valves
  - Put on all of the following PPE in concentrated ammonia atmospheres and in unknown concentrations of ammonia:
    - Self-contained breathing apparatus (SCBA)
    - A plastic or rubber suit
    - · Gauntlet-type plastic or rubber gloves
- Make sure a physician treats all employees with eye injuries caused by liquid ammonia. In addition:
  - Immediately flush liquid ammonia from skin or eyes continuously for a minimum of 15 minutes using water or eye wash solutions as required by the Safety and Health Core Rules First Aid, WAC 296-800-150.
  - Don't use neutralizing solutions or ointments on affected areas.



#### Note:

- > Drivers unable to stop a leak during transport should:
  - Move the vehicle to an isolated area
  - Use the current Department of Transportation (DOT) Emergency Response Guidebook to establish safe distances to isolate a leaking tank from the driver and the public.

